

**WEST**

Generate Collection

L1: Entry 1 of 39

File: USPT

Jan 2, 2001

US-PAT-NO: 6169515

DOCUMENT-IDENTIFIER: US 6169515 B1

TITLE: Navigation information system

DATE-ISSUED: January 2, 2001

## INVENTOR-INFORMATION:

| NAME                      | CITY    | STATE | ZIP CODE | COUNTRY |
|---------------------------|---------|-------|----------|---------|
| Mannings; Robin Thomas    | Ipswich | N/A   | N/A      | GBX     |
| Wall; Nigel David Charles | Ipswich | N/A   | N/A      | GBX     |

US-CL-CURRENT: 342/357.1; 342/357.13, 342/457, 701/209, 701/211, 701/213,  
701/217, 701/220

## ABSTRACT:

A navigation information system includes a communications system having a fixed part and at least one mobile part, the fixed part including data storage and a processor identifying the location of a mobile unit, generating guidance information appropriate to that location and transmitting it to the mobile unit. By locating most of the complexity with the service provider, in particular the navigation computer and geographical database, the system can be readily updated and the capital cost of the in-vehicle system, which in its simplest form may be a standard cellular telephone, can be minimized. The user makes a request for guidance information, and the system, having determined the user's present location, then transmits instructions to the user. The user's present location can be determined by a Satellite Positioning System or the like.

51 Claims, 7 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 4

**WEST****Freeform Search****Database:**

US Patents Full-Text Database  
JPO Abstracts Database  
EPO Abstracts Database  
Derwent World Patents Index  
IBM Technical Disclosure Bulletins

**Term:****Display:**  **Documents in Display Format:**  **Starting with Number** **Generate:** ☐ Hit List ☒ Hit Count ☐ Image

Search

Clear

Help

Logout

Interrupt

Main Menu

Show S Numbers

Edit S Numbers

Preferences

**Search History**

Today's Date: 2/6/2001

| <u>DB Name</u> | <u>Query</u>                              | <u>Hit Count</u> | <u>Set Name</u> |
|----------------|---|------------------|-----------------|
| USPT           | l1 and direction                          | 33               | <u>L5</u>       |
| USPT           | l1 and internet                           | 17               | <u>L4</u>       |
| USPT           | l1 and l2                                 | 0                | <u>L3</u>       |
| USPT           | text near3 voice (processor or conver\$6) | 42               | <u>L2</u>       |
| USPT           | 5543789                                   | 39               | <u>L1</u>       |

**WEST**

Generate Collection

L6: Entry 8 of 27

File: USPT

Jul 25, 2000

US-PAT-NO: 6094574

DOCUMENT-IDENTIFIER: US 6094574 A

TITLE: Alpha enhanced paging and voice mail system and method

DATE-ISSUED: July 25, 2000

## INVENTOR-INFORMATION:

| NAME                          | CITY       | STATE | ZIP CODE | COUNTRY |
|-------------------------------|------------|-------|----------|---------|
| Vance; Kenneth Ronald         | Plano      | TX    | 75023    | N/A     |
| Jungerman, Jr.; Edward Ernest | Richardson | TX    | 75080    | N/A     |

US-CL-CURRENT: 455/415; 379/127, 379/142, 455/458, 455/563

## ABSTRACT:

A wireless communications system, such as a paging system, that provides caller identification to a mobile unit. The paging system includes an IVR unit for prompting a caller to enter a call back number and a caller base number. The call base number is a number associated with the identity of the caller, such as the caller's home number or main business number. The paging system further includes an interface unit for obtaining caller identification information from a telephone listing database in an external database, such as the line identification database (LIDB) in a public switched telephone network. In operation, the paging system first determines caller identification from the base number by accessing the LIDB database for a listing corresponding to the base number. The paging system may also perform other steps to determine the caller identification from the caller's base number, such as searching a reverse look-up telephone directory. If the call base number is unavailable or fails to produce caller identification information, the paging system may use the call back number to determine caller identification information. The paging system may also include a voice recognition unit to obtain caller identification information. A voice mail system may also be connected to the paging system that stores a voice mail message from the caller and assigns queue information to the voice mail message. The paging system then transmits a message to the pager that includes the call back number, caller identification, and queue information. A cellular telephony system or personal communications services (PCS) system may also implement the paging system by transmitting the call back number, caller identification and queue information to a mobile station using short messaging services.

8 Claims, 13 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 9

**WEST**

Generate Collection

L1: Entry 1 of 39

File: USPT

Jan 2, 2001

US-PAT-NO: 6169515

DOCUMENT-IDENTIFIER: US 6169515 B1

TITLE: Navigation information system

DATE-ISSUED: January 2, 2001

## INVENTOR-INFORMATION:

| NAME                      | CITY    | STATE | ZIP CODE | COUNTRY |
|---------------------------|---------|-------|----------|---------|
| Mannings; Robin Thomas    | Ipswich | N/A   | N/A      | GBX     |
| Wall; Nigel David Charles | Ipswich | N/A   | N/A      | GBX     |

US-CL-CURRENT: 342/357.1; 342/357.13, 342/457, 701/209, 701/211, 701/213,  
701/217, 701/220

## ABSTRACT:

A navigation information system includes a communications system having a fixed part and at least one mobile part, the fixed part including data storage and a processor identifying the location of a mobile unit, generating guidance information appropriate to that location and transmitting it to the mobile unit. By locating most of the complexity with the service provider, in particular the navigation computer and geographical database, the system can be readily updated and the capital cost of the in-vehicle system, which in its simplest form may be a standard cellular telephone, can be minimized. The user makes a request for guidance information, and the system, having determined the user's present location, then transmits instructions to the user. The user's present location can be determined by a Satellite Positioning System or the like.

51 Claims, 7 Drawing figures Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

**WEST**

Generate Collection

L1: Entry 4 of 39

File: USPT

Nov 14, 2000

US-PAT-NO: 6148261

DOCUMENT-IDENTIFIER: US 6148261 A

TITLE: Personal communication system to send and receive voice data positioning information

DATE-ISSUED: November 14, 2000

## INVENTOR-INFORMATION:

| NAME                   | CITY         | STATE | ZIP CODE | COUNTRY |
|------------------------|--------------|-------|----------|---------|
| Obradovich; Michael L. | San Clemente | CA    | N/A      | N/A     |
| Dinkel; John           | Irvine       | CA    | N/A      | N/A     |
| Kent; Michael          | Garden Grove | CA    | N/A      | N/A     |

US-CL-CURRENT: 701/208; 340/286.01, 340/988, 340/995, 701/213, 701/300

## ABSTRACT:

A location tagged data provision and display system. A personal communication device (PCD) with electromagnetic communication capability has a GPS receiver and a display. The PCD requests maps and location tagged data from data providers and other for display on the PCD. The data providers respond to requests by using searching and sorting schemes to interrogate data bases and then automatically transmitting data responsive to the requests to the requesting PCD.

42 Claims, 40 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 31

**WEST**

Generate Collection

L1: Entry 6 of 39

File: USPT

Oct 31, 2000

US-PAT-NO: 6141621

DOCUMENT-IDENTIFIER: US 6141621 A

TITLE: Method of providing a textual description of a remote vehicle location

DATE-ISSUED: October 31, 2000

## INVENTOR-INFORMATION:

| NAME              | CITY             | STATE | ZIP CODE | COUNTRY |
|-------------------|------------------|-------|----------|---------|
| Piwowarski; James | Holly            | MI    | N/A      | N/A     |
| Malinowski; Mark  | Farmington Hills | MI    | N/A      | N/A     |

US-CL-CURRENT: 701/207; 340/989, 701/211

## ABSTRACT:

A vehicle assistance request system includes methodology for accurately and specifically identifying the vehicle location when a request is made. A written, textual description of the vehicle location, identifying streets, addresses, and other available information is provided to enhance the ability of the service provider to locate the vehicle. Further, response time is reduced and accuracy in locating a vehicle is increased. The method of this invention includes a multi-tiered decision process for determining where the vehicle is located.

26 Claims, 4 Drawing figures Exemplary Claim Number: 1  
Number of Drawing Sheets: 2

**WEST**

Generate Collection

L2: Entry 29 of 42

File: USPT

Nov 10, 1998

DOCUMENT-IDENTIFIER: US 5835881 A

TITLE: Portable system for providing voice driving directions

## DEPR:

The system 100 of the present invention is based on a typical portable laptop type computer system 102, such as illustrated in FIG. 1. Such systems 102 are produced by a number of companies and typically include a central processor 104 with an associated real time clock, a display 106, a keyboard (not shown), an audio unit 107 that includes a digital-to-analog converter and a speaker, and various types of memories 108, 109, 110, 112 and 114 connected to a system bus 116. The process databases described herein can be stored in the RAM 110, ROM 112, the hard disk 114 or a floppy disk or other portable media associated with a portable media device, such as the floppy disk drive 108 or CD ROM drive 109 or a PCMCIA flash card (not shown). Various types of plug in units, as well as the software needed to use the units, are available for laptop computers. The present invention, in addition to the typical laptop components noted above, includes a conventional PCMCIA GPS unit 118, such as available from Rockwell International, that provides the longitude and latitude of the unit 118 and the current time based on signals from global positioning satellites. The present invention also includes a conventional text to voice converter 120. The converter 120 is preferably an integrated voice synthesizer which is part of the laptop 102 when it is produced. Of course the laptop can be produced with both the GPS unit 118 and the converter 120 if desired. The system 100 can also transmit the current status, including the set points that have been reached to a central station using the transmitter which is useful in traffic control.

**WEST**

Generate Collection

L2: Entry 5 of 42

File: USPT

Dec 12, 2000

DOCUMENT-IDENTIFIER: US 6161007 A

TITLE: Method and apparatus for processing multiple types of incoming communication

DEPR:

The apparatus 216 also contains a voice-to-text converter 408, a text-to-voice converter 410, a protocol converter 414, a smart card slot 412, and a perforation blade 418 which are all operably coupled to the communication processor 406.

DEPR:

Through the voice-to-text converter 408 and the text-to-voice converter 410, the user has the option of converting received messages to text, voice, or both. If the apparatus 216 received a voice message and the user indicated all messages were to be printed to paper, the voice message would be routed to the voice-to-text converter 408 by the communication processor 406. The voice-to-text converter 408 would convert the voice message into a text message and send that text message back to the communication processor 406. The communication processor 406 would then send the text message to the printer to be printed out. The text-to-voice converter 410 would work in a similar manner except a text message would be converted into a voice message and output via the transceiver 310. The user is now able to receive all of their messages in the form they prefer.

CLPV:

a voice to text converter disposed between the communication processor and the memory to convert incoming voice messages to text when such desired action has been entered;

CLPV:

a text to voice converter disposed between the communication processor and the memory to convert incoming text messages to voice when such desired action has been entered; and



**WEST**

Generate Collection

L2: Entry 27 of 42

File: USPT

Mar 2, 1999

US-PAT-NO: 5878395

DOCUMENT-IDENTIFIER: US 5878395 A

TITLE: Code reading terminal with integrated vehicular head-up display capability

DATE-ISSUED: March 2, 1999

## INVENTOR-INFORMATION:

| NAME              | CITY   | STATE | ZIP CODE | COUNTRY |
|-------------------|--------|-------|----------|---------|
| Bennett; James D. | Austin | TX    | N/A      | N/A     |

US-CL-CURRENT: 704/275; 704/272

## ABSTRACT:

A portable computer terminal is disclosed which may operate in a hand-held mode and while docked within a vehicle. The terminal interacts with an illumination means therein which can be used for bar code reading and, while docked, for providing illumination for a head up display on the vehicle's windshield. Textual messages undergo text to voice conversion as well as head up display. Moreover, to provide full hands-off operation, voice recognition of predefined sets of commands is incorporated within the terminal. In another embodiment, the illumination means is placed in a housing separate from the terminal. A wireless link between the illumination means and the terminal provide for communicating text and graphics for head up display.

21 Claims, 10 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 10

**WEST**

Generate Collection

L1: Entry 10 of 39

File: USPT

Aug 29, 2000

US-PAT-NO: 6111539

DOCUMENT-IDENTIFIER: US 6111539 A

TITLE: Navigation information system

DATE-ISSUED: August 29, 2000

## INVENTOR-INFORMATION:

| NAME                      | CITY    | STATE | ZIP CODE | COUNTRY |
|---------------------------|---------|-------|----------|---------|
| Mannings; Robin Thomas    | Suffolk | N/A   | N/A      | GBX     |
| Wall; Nigel David Charles | Suffolk | N/A   | N/A      | GBX     |

US-CL-CURRENT: 342/357.09; 342/357.1

## ABSTRACT:

A navigation information system includes a communications system having a fixed part and at least one mobile part, the fixed part including data storage and processing for identifying the location of a mobile unit, generating guidance information appropriate to that location and transmitting it to the mobile unit. By locating most of the complexity with the service provider, in particular the navigation computer and geographical database, the system can be readily updated and the capital cost of the in-vehicle system, which in its simplest form may be a standard cellular telephone, can be minimized. The user makes a request for guidance information, and the system, having determined the user's present location, then transmits instructions to the user. The user's present location can be determined by a Satellite Positioning System.

25 Claims, 7 Drawing figures Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

**WEST**

Generate Collection

L1: Entry 5 of 39

File: USPT

Nov 14, 2000

US-PAT-NO: 6148260

DOCUMENT-IDENTIFIER: US 6148260 A

TITLE: Interactive network directory service with integrated maps and directions

DATE-ISSUED: November 14, 2000

## INVENTOR-INFORMATION:

| NAME                       | CITY          | STATE | ZIP CODE | COUNTRY |
|----------------------------|---------------|-------|----------|---------|
| Musk; Elon                 | Mountain View | CA    | N/A      | N/A     |
| Fitzgerald, II; Maurice J. | San Bruno     | CA    | N/A      | N/A     |

US-CL-CURRENT: 701/200; 709/203, 709/217

## ABSTRACT:

The present invention provides a network accessible service which integrates both a business directory and a map database. A user can search the business directory in a variety of methods, including using aspects of the map database (i.e., a radius) to quantify the search. The user can then obtain directions from a specified user location to a selected search result. All of this is conveniently accomplished through a single website access.

16 Claims, 8 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 6

**WEST**

Generate Collection

L1: Entry 8 of 39

File: USPT

Oct 10, 2000

US-PAT-NO: 6131067

DOCUMENT-IDENTIFIER: US 6131067 A

TITLE: Client-server based remote locator device

DATE-ISSUED: October 10, 2000

## INVENTOR-INFORMATION:

| NAME               | CITY       | STATE | ZIP CODE | COUNTRY |
|--------------------|------------|-------|----------|---------|
| Girerd; Richard J. | Palo Alto  | CA    | N/A      | N/A     |
| Krasner; Norman F. | San Carlos | CA    | N/A      | N/A     |

US-CL-CURRENT: 701/213; 340/989

## ABSTRACT:

A user accesses a server using a client. The client provides an identification code which serves to uniquely identify a remote sensor. The remote sensor is capable of providing information related to its position. The server interrogates the remote sensor and, in response, the remote sensor transmits positioning data to the server where it is analyzed to derive the location of the remote server. The location so determined is transmitted from the server to the client and is displayed at the client so that the user can identify the location of the remote sensor. The client and the server may be connected to a computer network and the client may use a web browser to interrogate the server. The remote sensor may be a SNAPSHOT GPS receiver or other GPS receiver or positioning device. The user display may be a simple position report, e.g., latitude and longitude, or a graphical report which provides an indication of the remote sensor's location superimposed on a map or other reference.

40 Claims, 12 Drawing figures Exemplary Claim Number: 1

Number of Drawing Sheets: 10